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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,903	09/29/2003	Peter Bier	PO7878/LeA 35,782	1980
157	7590	01/19/2006	EXAMINER	
BAYER MATERIAL SCIENCE LLC 100 BAYER ROAD PITTSBURGH, PA 15205			ZIMMER, MARC S	
			ART UNIT	PAPER NUMBER

1712

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,903

Applicant(s)

BIER ET AL.

Examiner

Marc S. Zimmer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,10,12,14,29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,10,12,14,29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Based on the Examiner's consistent failure to address the dilution step, which was only optional before, Applicant has ^{now} ~~not~~ amended the claims to mandate that this step be carried out. The claims also now require the addition of a flow control agent in a specified amount.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4, 6, 10, 12, 14, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwayima et al., U.S. Patent # 6,403,183 in view of Kasemann et al., U.S. patent # 6,482,525. Iwayima teaches every limitation except (i) the dilution step and (ii) the amount of the flow control agent (described as a viscosity modifier in their description).

Kasemann teaches a similarly constituted sol gel lacquer that, in one embodiment, may contain hydrolyzable metal compounds. It is stated in column 5, lines 10-28 that, where metals compounds are hydrolyzed in combination with a silane, the extreme reactivity of their hydrolyzates dictates that the mixture be substantially diluted to preclude premature viscosity increases due to polycondensation. It is acknowledged that they don't specify exactly to what concentration the solids should be diluted. Nevertheless, they do say that "high" dilution is required. Furthermore, it is within the capability of one having ordinary skill to ascertain how much dilution is required to yield

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a stable mixture as a matter of routine experimentation. "Where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (ie. does not require undue experimentation)." *In re Aller*, 105 USPQ 233. "Discovering an optimum value of a result effective variable involves only routine skill in the art." *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

As for the amount of the flow control agent, the amount recited in the claims is consistent with that normally employed in the preparation of organosilicon coating compositions.

Claims 1-4, 6, 10, 12, 14, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolter et al., U.S. Patent # 5,233,006 in view of Kasemann et al., U.S. patent # 6,482,525.

The same shortcomings as a prior art reference exist in Wolter as did in Iwayima. However, the dilution step and the amount of flow control agent are obvious for the same reasons as were outlined above.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolter et al., U.S. Patent # 5,233,006 in view of Kasemann et al., U.S. patent # 6,482,525 as applied to claims 1-4, 6, 10, 12, 14, and 29 above, and further in view of Ching, U.S. Patent # 4,373,061 and/or Vaughn, U.S. patent # 4,368,235. Because Wolter does not mention what flow control agents are appropriate, one of ordinary skill would turn to the related prior art, i.e. protective sol gel coating compositions to determine what agents are most suitable. Both Ching and Vaughn, which are directed to protective coatings for

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plastic substrates, advocate using polysiloxane polyether copolymer as a flow control agent of choice.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

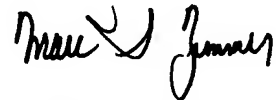
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 17, 2006

A handwritten signature in black ink, appearing to read "Marc S. Zimmer".

MARC S. ZIMMER
PRIMARY EXAMINER